

**CLAIMS**

1       1. An ARPA-Internet Network Access/Service Provider device comprising:  
2           a fax gateway including,  
3            a storage device for storing an e-mail message received from a sender through a data  
4       communications network, the stored e-mail message being converted to a fax document for  
5       transmission thereof to a fax recipient having access to a fax device;  
6           at least one fax modem device for transmitting the fax document to the fax recipient  
7       through a public switched telephone network,  
8           wherein the ARPA-Internet Network Access/Service Provider device allows a fax  
9       recipient to receive e-mail messages by the use of a fax device without requiring computer  
10      equipment.

1       2. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2       wherein the storage device further for storing a fax telephone number associated with the fax  
3       device of the fax recipient and for using the fax telephone number for establishing a call for the  
4       transmission of the fax document.

1       3. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2       wherein the storage device for further storing a time-of-day for specifying a range of time during  
3       which the fax document is transmitted.

1       4. An ARPA-Internet Network Access/Service Provider device as recited in claim 1 further  
2       including a server device for storing a fax telephone number associated with the fax device of  
3       the fax recipient and for using the fax telephone number for establishing a call for the

4 transmission of the fax document, said server device for further storing a time-of-day for  
5 specifying a range of time during which the fax document is transmitted.

1 5. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2 wherein the storage device for further creating a fax cover page for transmission thereof to the  
3 fax recipient.

1 6. An ARPA-Internet Network Access/Service Provider device as recited in claim 5  
2 wherein the e-mail message includes an e-mail address and the fax cover page includes a sender  
3 field extracted from the e-mail address.

1 7. An ARPA-Internet Network Access/Service Provider device as recited in claim 6  
2 wherein the ARPA-Internet Network Access/Service Provider devices assigns an e-mail address  
3 to the fax recipient, the e-mail address being correlated to a fax telephone number identifying the  
4 fax device and wherein the fax cover page for further including a destination field extracted from  
5 the fax recipient e-mail address.

1 8. An ARPA-Internet Network Access/Service Provider device as recited in claim 7  
2 wherein the e-mail message includes a subject field and the ARPA-Internet Network  
3 Access/Service Provider device for including the e-mail subject field contents in the fax cover  
4 page prior to transmission thereof to the fax recipient.

1 9. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2 wherein the storage device for further assigning a mailbox for storage of e-mail messages

3 directed to the fax recipient and upon receipt of the e-mail message, for storing the e-mail  
4 message within the assigned mailbox of the fax recipient.

1 10. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2 wherein the fax gateway is coupled to the public switching telephone network through one or  
3 more telephone lines.

1 11. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2 wherein the fax gateway is coupled to the public switching telephone network through a digital  
3 communications links.

1 12. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2 wherein the fax gateway is coupled to the data communications network through a digital  
3 communications link.

1 13. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2 wherein the storage device is a computer system having a conversion program for causing  
3 conversion of the e-mail message to a fax document.

1 14. An ARPA-Internet Network Access/Service Provider device as recited in claim 13  
2 wherein the storage device is a computer system having an e-mail program for causing storage of  
3 the e-mail message.

1 15. An ARPA-Internet Network Access/Service Provider device as recited in claim 14  
2 wherein the e-mail program and the conversion program reside externally to the fax gateway.

1 16. An ARPA-Internet Network Access/Service Provider device as recited in claim 1  
2 wherein the fax gateway further for receiving a reply fax document from the fax recipient, for  
3 converting the reply fax document to a reply e-mail message and for transmitting the reply e-  
4 mail message to the sender.

1 17. An method for sending and receiving e-mail messages using a fax device comprising:  
2 receiving an e-mail message through a data communications network;  
3 converting the e-mail message into a fax document; and  
4 transmitting the fax document to a fax recipient thereby enabling the fax recipient to  
5 receive e-mail messages without access to the data communications network.

1 18. A method as recited in claim 17 further including the step of receiving a reply from the  
2 fax recipient in the form of a reply fax document, converting the reply fax document to a reply e-  
3 mail message and transmitting the reply e-mail message through the data communications  
4 network.

1 19. A method as recited in claim 17 further including the step of verifying a destination user  
2 address for identifying the fax recipient as being a known user.

1 20. A method as recited in claim 19 wherein upon unsuccessful verification of the  
2 destination user address sending a failed message.

1 21. A computer readable medium having stored therein computer readable program code  
2 comprising instructions for performing the following steps:  
3  
4 receiving an e-mail message through a data communications network;

5           converting the e-mail message into a fax document; and  
6           transmitting the fax document to a fax recipient thereby enabling the fax recipient to  
7   receive e-mail messages without access to the data communications network.